

CLAIMS

1. A transmitter comprising:

a peak suppressing section for detecting whether there exists a peak based on the level of an inputted signal and outputting a level suppressed signal when the peak is detected;

an input power calculating section for calculating the level of the signal before the signal is inputted to the peak suppressing section;

an output power calculating section for calculating the level of the level suppressed signal after the level suppressed signal is outputted from the peak suppressing section; and

an adjusting unit for controlling the signal level of a signal to be outputted such that the signal level of the signal is adjusted based on the level calculated by the input power calculating section and the level calculated by the output power calculating section.

2. A transmitter which adjusts the signal level of a multicarrier signal obtained by combining multiple carriers, the transmitter comprising:

a peak suppressing section for detecting whether there exists a peak based on the sum of power levels of inputted carriers and outputting the carriers the power levels of which are suppressed such that the sum of the power levels is smaller than a predetermined peak threshold value when the peak is

detected;

an input power calculating section for calculating a mean power level for each carrier before the carriers are inputted to the peak suppressing section;

an output power calculating section for calculating a mean power level for each carrier after the carriers are outputted from the peak suppressing section;

a monitoring section for outputting level control information which controls the signal level of the multicarrier signal based on the mean power level calculated by the input power calculating section and the mean power level calculated by the output power calculating section; and

a level adjusting section for adjusting the level of the multicarrier signal based on the level control information outputted from the monitoring section.

3. A transmitter which controls the signal level of a multicarrier signal obtained by combining multiple carriers such that the signal level of the multicarrier signal is adjusted, the transmitter comprising:

a peak suppressing section for detecting whether there exists a peak based on the sum of power levels of inputted carriers and outputting the carriers the power levels of which are suppressed such that the sum of the power levels is smaller than a predetermined peak threshold value when the peak is detected;

an input power calculating section for calculating a mean power level for each carrier before the carriers are inputted to the peak suppressing section;

an output power calculating section for calculating a mean power level for each carrier after the carriers are outputted from the peak suppressing section;

a monitoring section for outputting level control information which controls the signal level of each carrier outputted from the peak suppressing section based on the mean power level calculated by the input power calculating section and the mean power level calculated by the output power calculating section for each carrier; and

a level adjusting section for adjusting the level of each carrier based on the corresponding level control information for each carrier.

4. A transmitter which adjusts the signal level of a multicarrier signal obtained by combining multiple carriers, the transmitter comprising:

a peak suppressing section for detecting whether there exists a peak based on the sum of power levels of inputted carriers and outputting the carriers the power levels of which are suppressed such that the sum of the power levels is smaller than a predetermined peak threshold value when the peak is detected;

an input power calculating section for calculating a mean

power level of the sum for each carrier before the carriers are inputted to the peak suppressing section;

an output power calculating section for calculating a mean power level of the sum for each carrier after the carriers are outputted from the peak suppressing section;

a monitoring section for outputting level control information which controls the signal level of the multicarrier signal based on the mean power level of the sum calculated by the input power calculating section and the mean power level of the sum calculated by the output power calculating section; and

a level adjusting section for adjusting the level of the multicarrier signal based on the level control information outputted from the monitoring section.

5. A transmitter which adjusts the signal level of a multicarrier signal obtained by combining multiple carriers, the transmitter comprising:

a peak suppressing section for detecting whether there exists a peak based on a power level of the inputted multicarrier signal and outputting the multicarrier signal the power level of which is suppressed such that the power level is smaller than a predetermined peak threshold value when the peak is detected;

an input power calculating section for calculating a mean power level for the multicarrier signal before the

multicarrier signal is inputted to the peak suppressing section;

an output power calculating section for calculating a mean power level for the multicarrier signal outputted from the peak suppressing section;

a monitoring section for outputting level control information which controls the signal level of the multicarrier signal based on the mean power level calculated by the input power calculating section and the mean power level calculated by the output power calculating section; and

a level adjusting section for adjusting the level of the multicarrier signal based on the level control information outputted from the monitoring section.